

FIG. 1A FORMATION OF AMORPHOUS SEMICONDUCTOR FILM

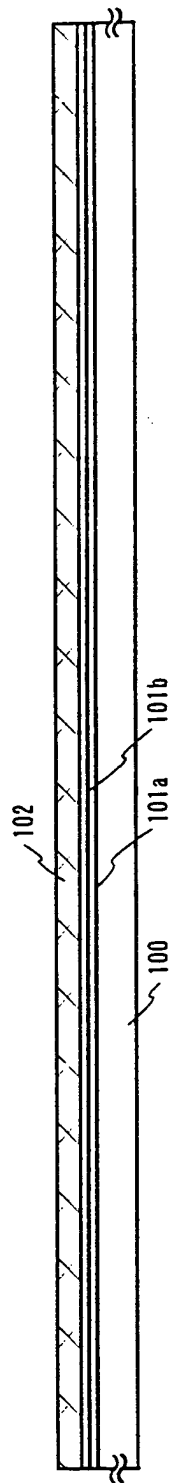


FIG. 1B FORMATION OF CATALYTIC ELEMENT CONTAINING LAYER

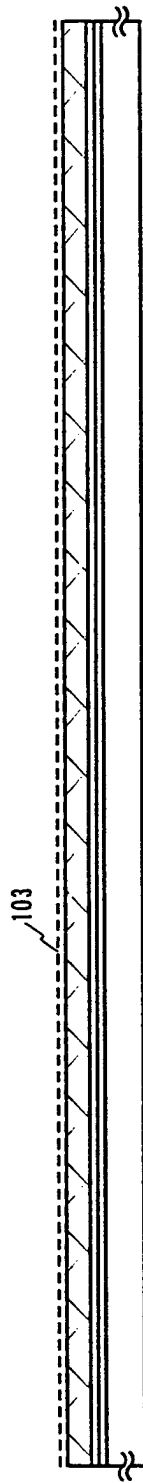


FIG. 1C HEAT TREATMENT (CRYSTALLIZATION OF SEMICONDUCTOR FILM)

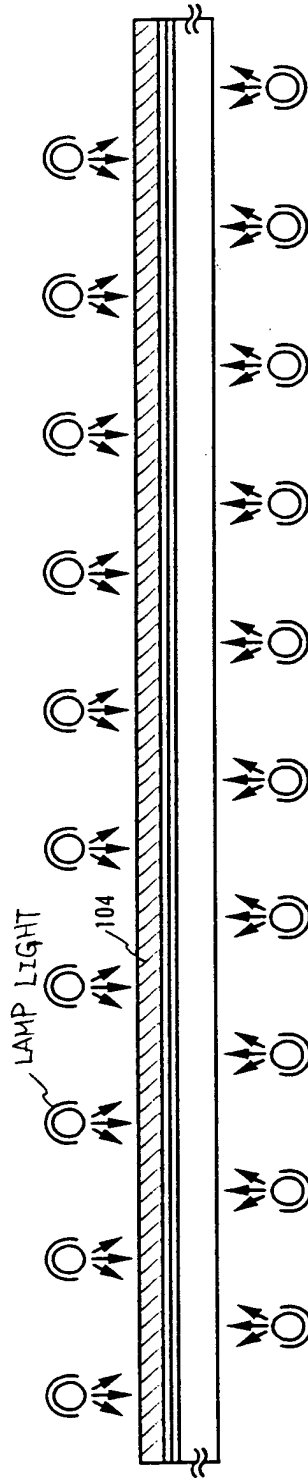


FIG. 1D LASER LIGHT IRRADIATION

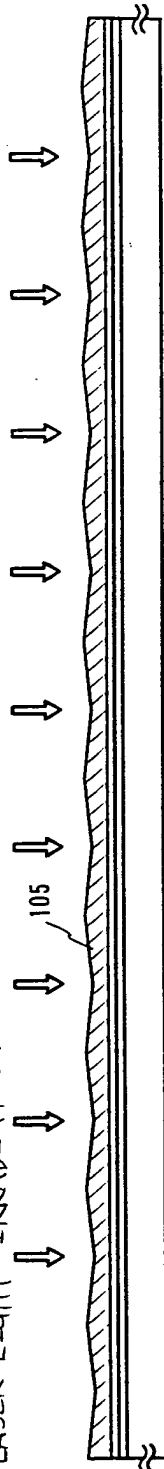


FIG. 2A FORMATION OF BARRIER LAYER AND SEMICONDUCTOR FILM CONTAINING RARE GAS ELEMENT

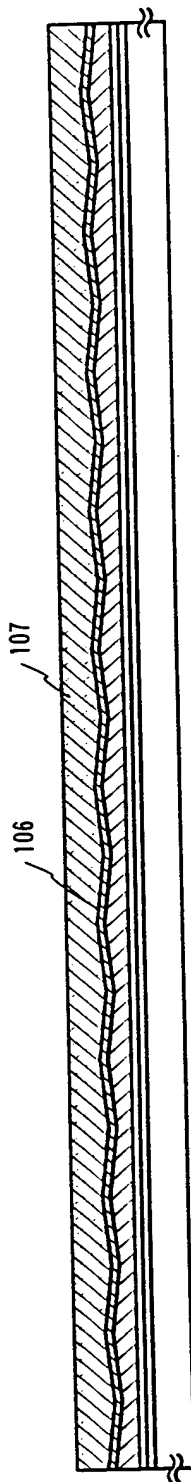


FIG. 2B HEAT TREATMENT (GETTERING)

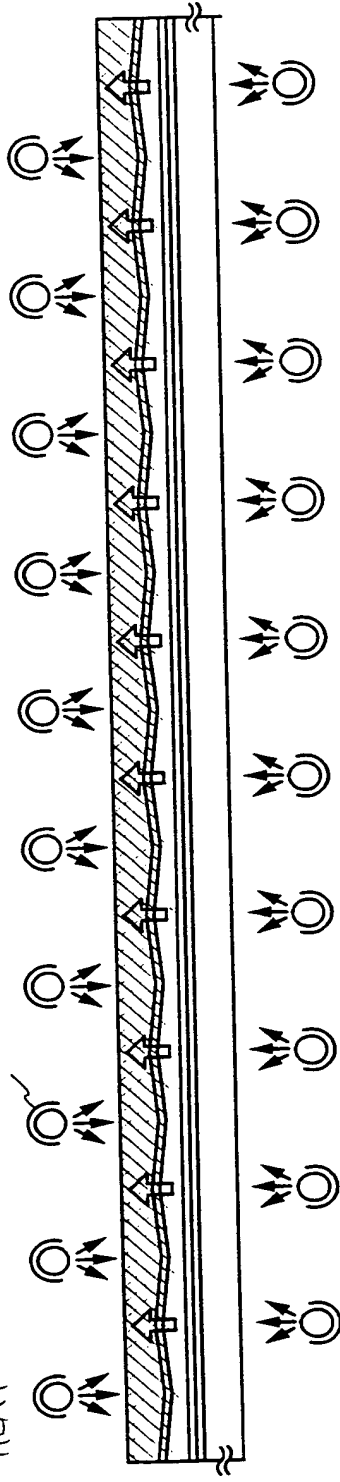


FIG. 2C REMOVAL OF BARRIER LAYER AND SEMICONDUCTOR FILM CONTAINING RARE GAS ELEMENT

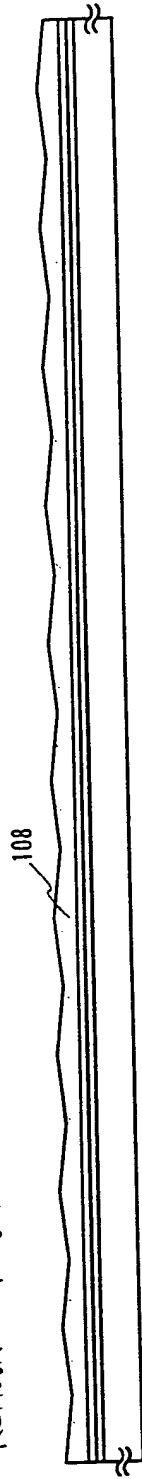
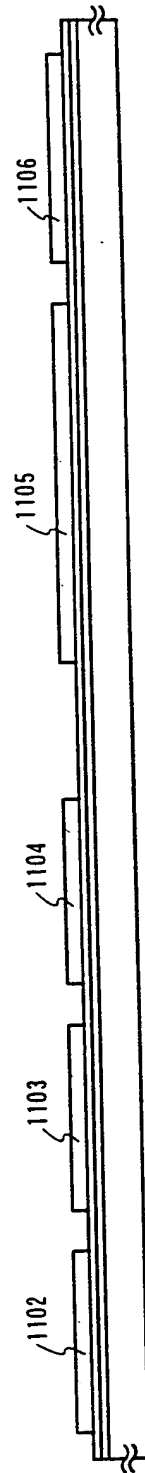
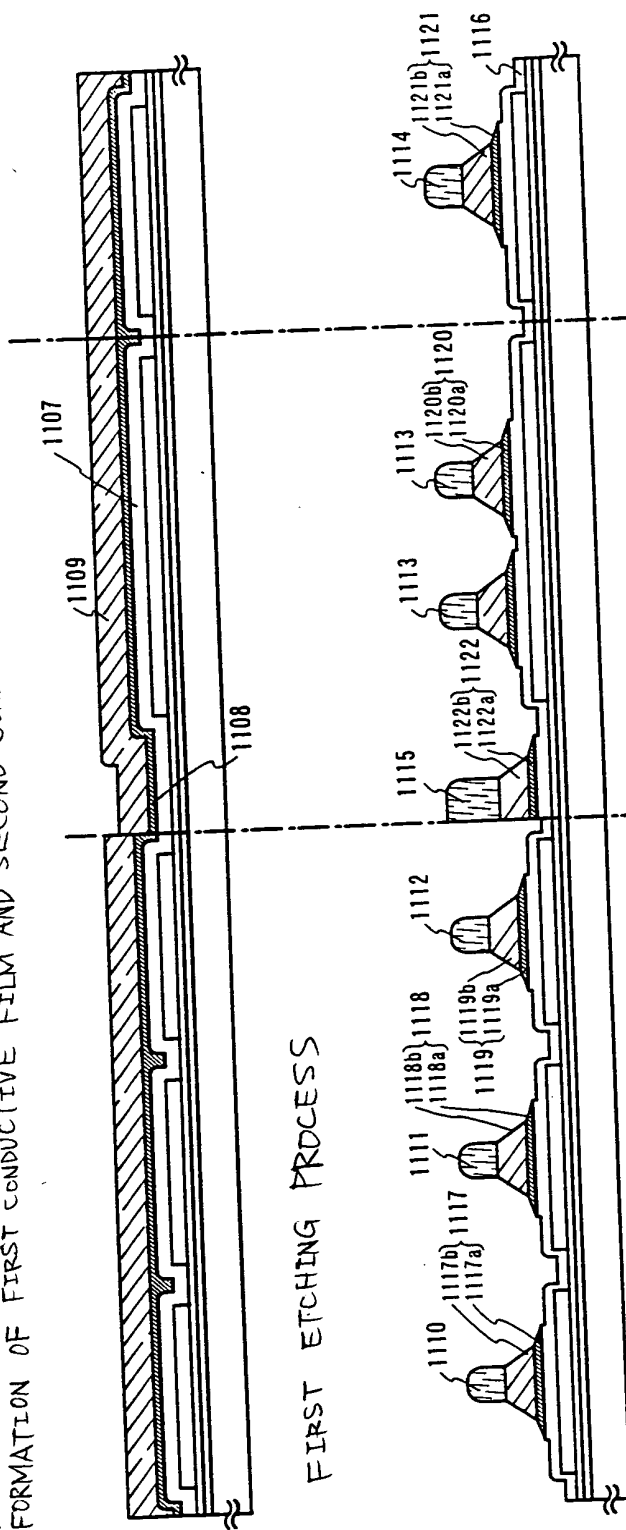


FIG. 2D FORMATION OF ACTIVE LAYER



FORMATION OF SEMICONDUCTOR LAYER / FORMATION OF INSULATING FILM /  
FORMATION OF FIRST CONDUCTIVE FILM AND SECOND CONDUCTIVE FILM

FIG. 3A



FIRST ETCHING PROCESS

FIG. 3B

SECOND ETCHING PROCESS /  
FIRST DOPING PROCESS

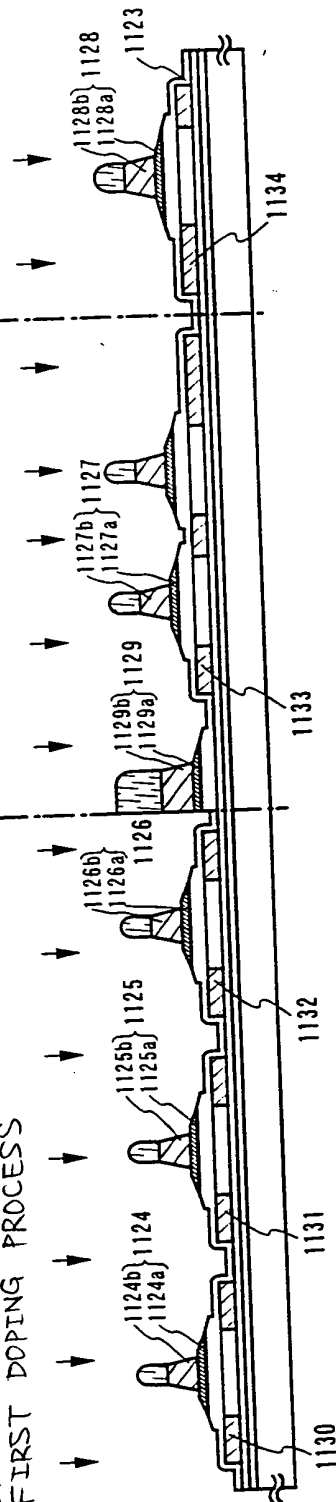


FIG. 4A SECOND DOPING PROCESS

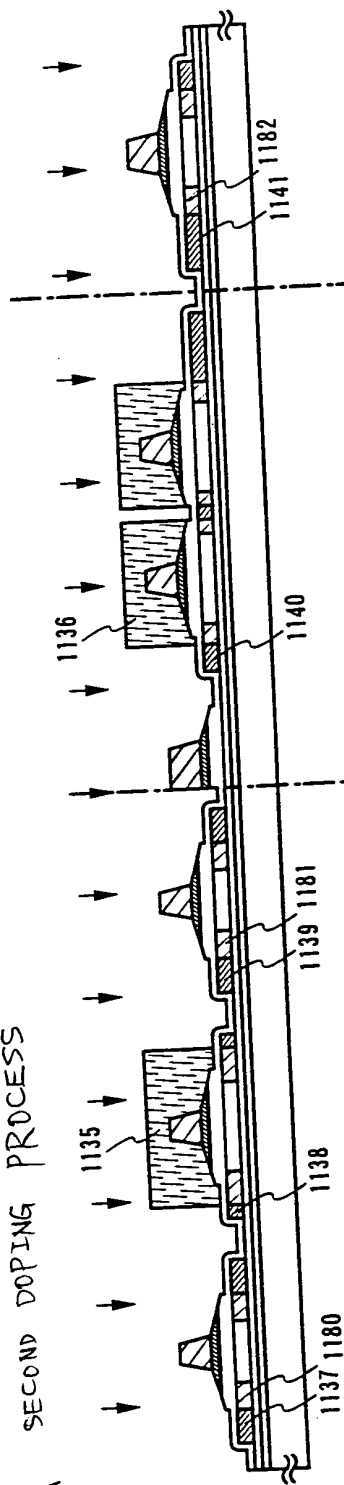


FIG. 4B THIRD DOPING PROCESS

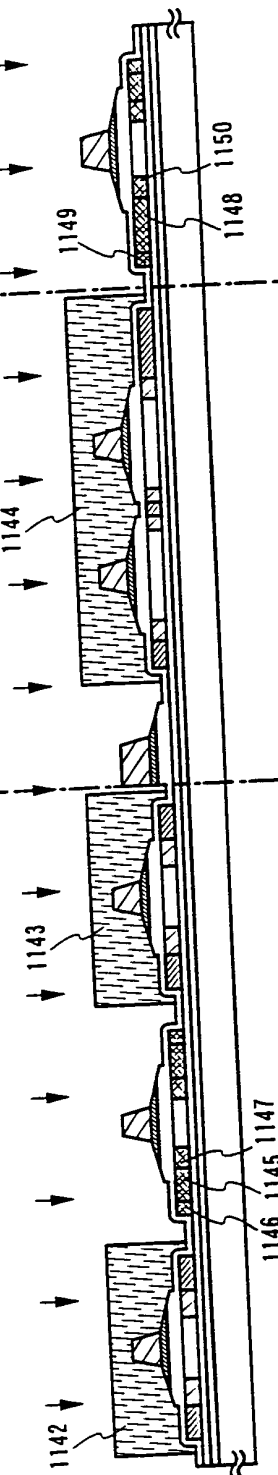
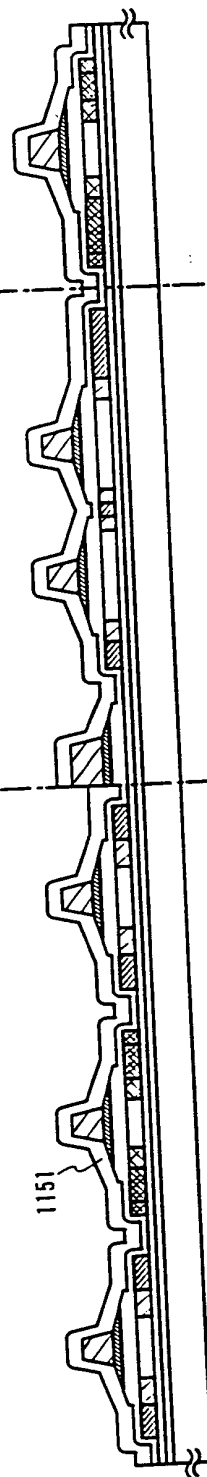


FIG. 4C ACTIVATION / HYDROGENATION



FORMATION OF INTERLAYER INSULATING FILM/  
FORMATION OF PIXEL ELECTRODE AND WIRING

FIG. 5

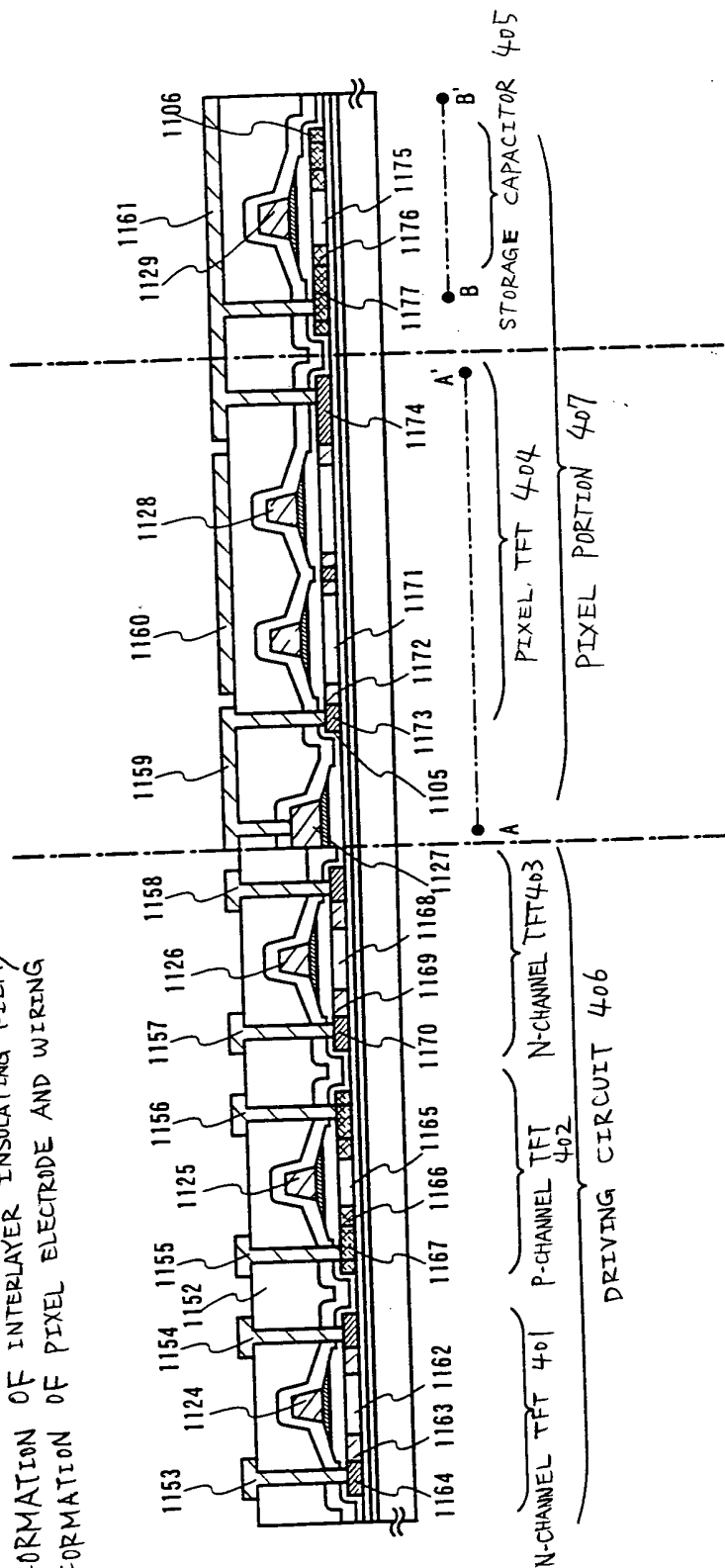
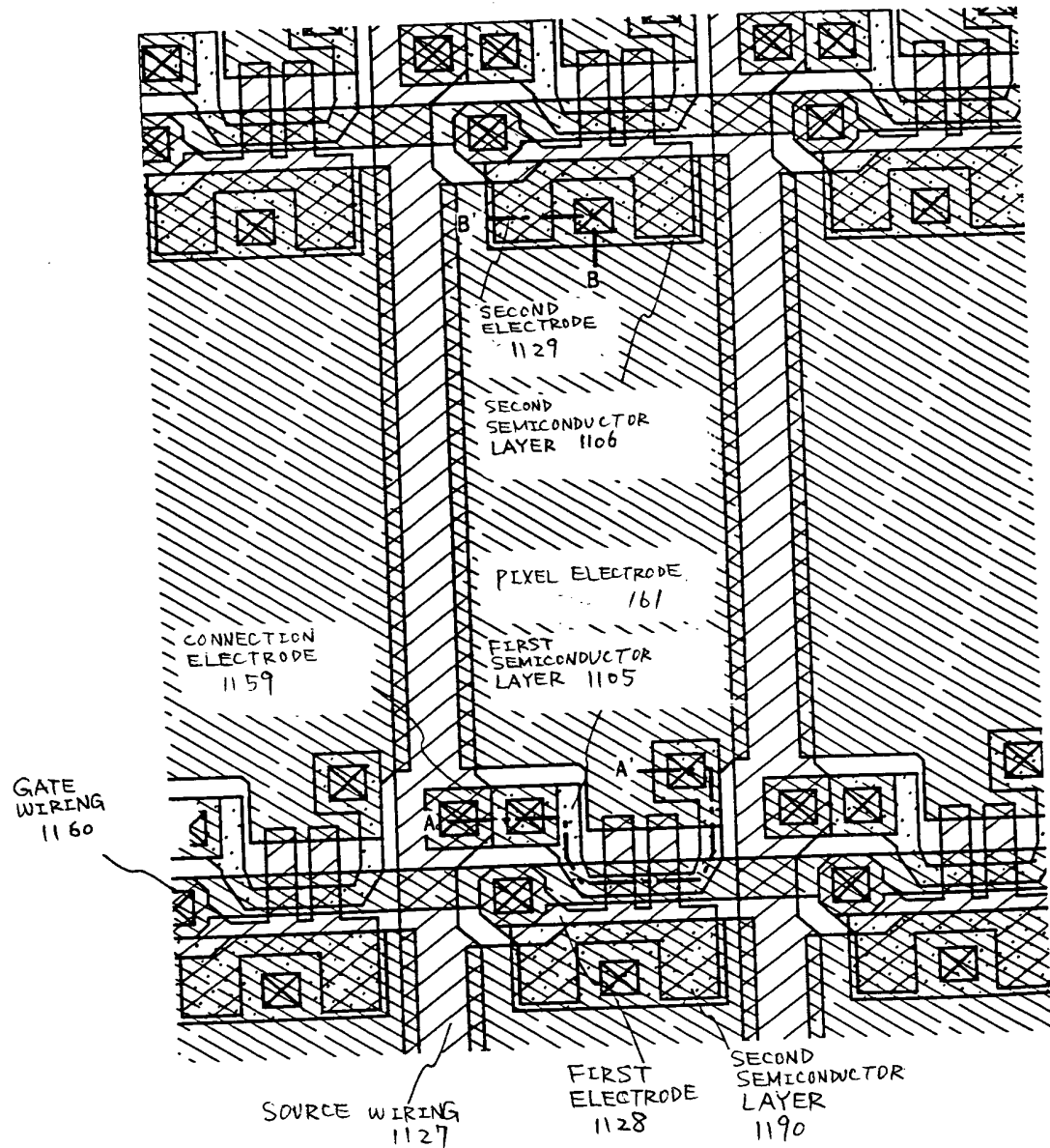


FIG. 6



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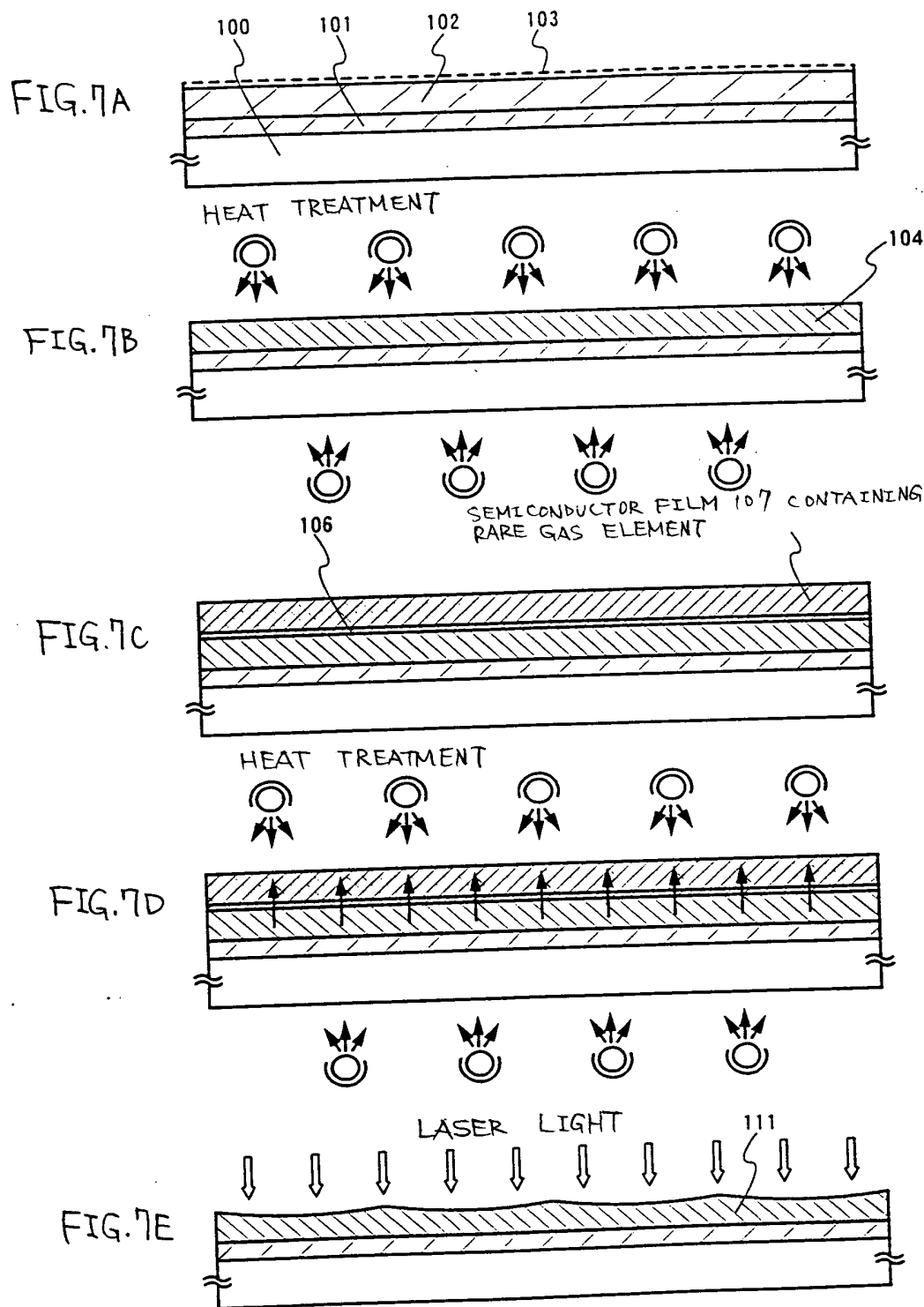


FIG. 8A

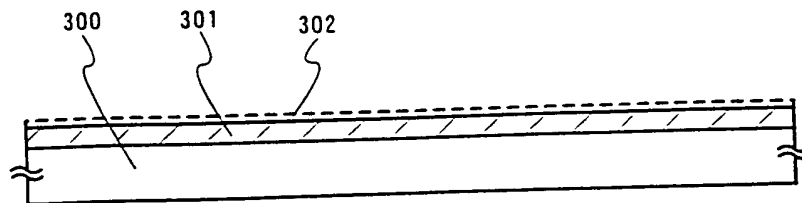


FIG. 8B

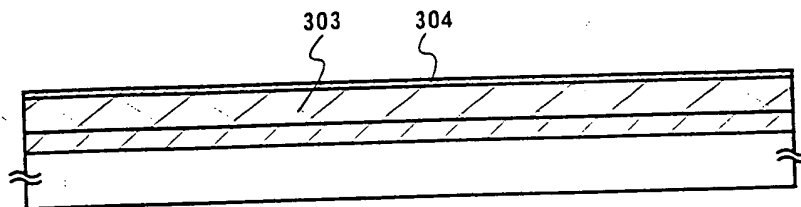
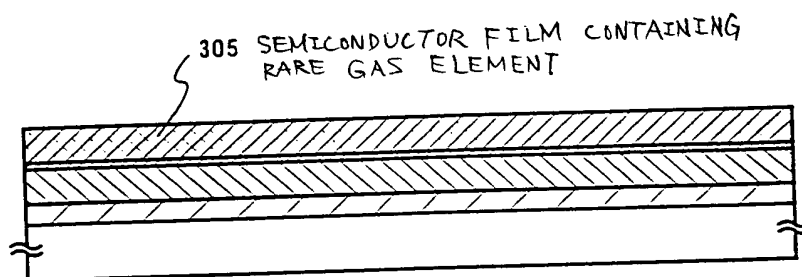


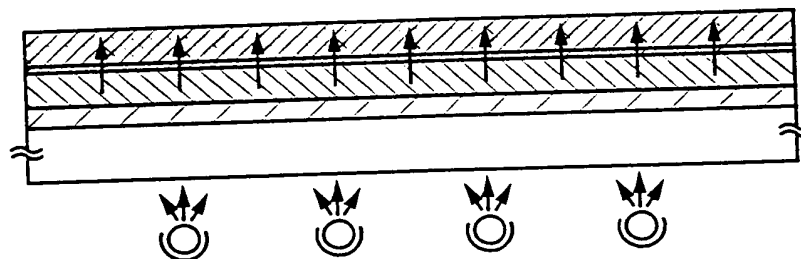
FIG. 8C



HEAT TREATMENT

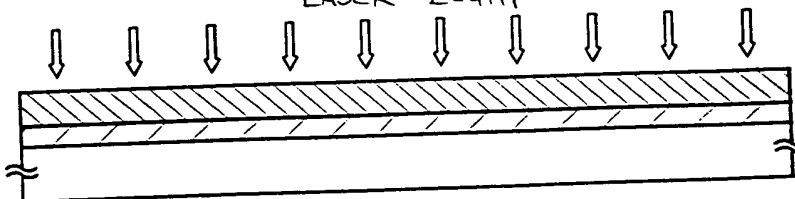


FIG. 8D



LASER LIGHT

FIG. 8E



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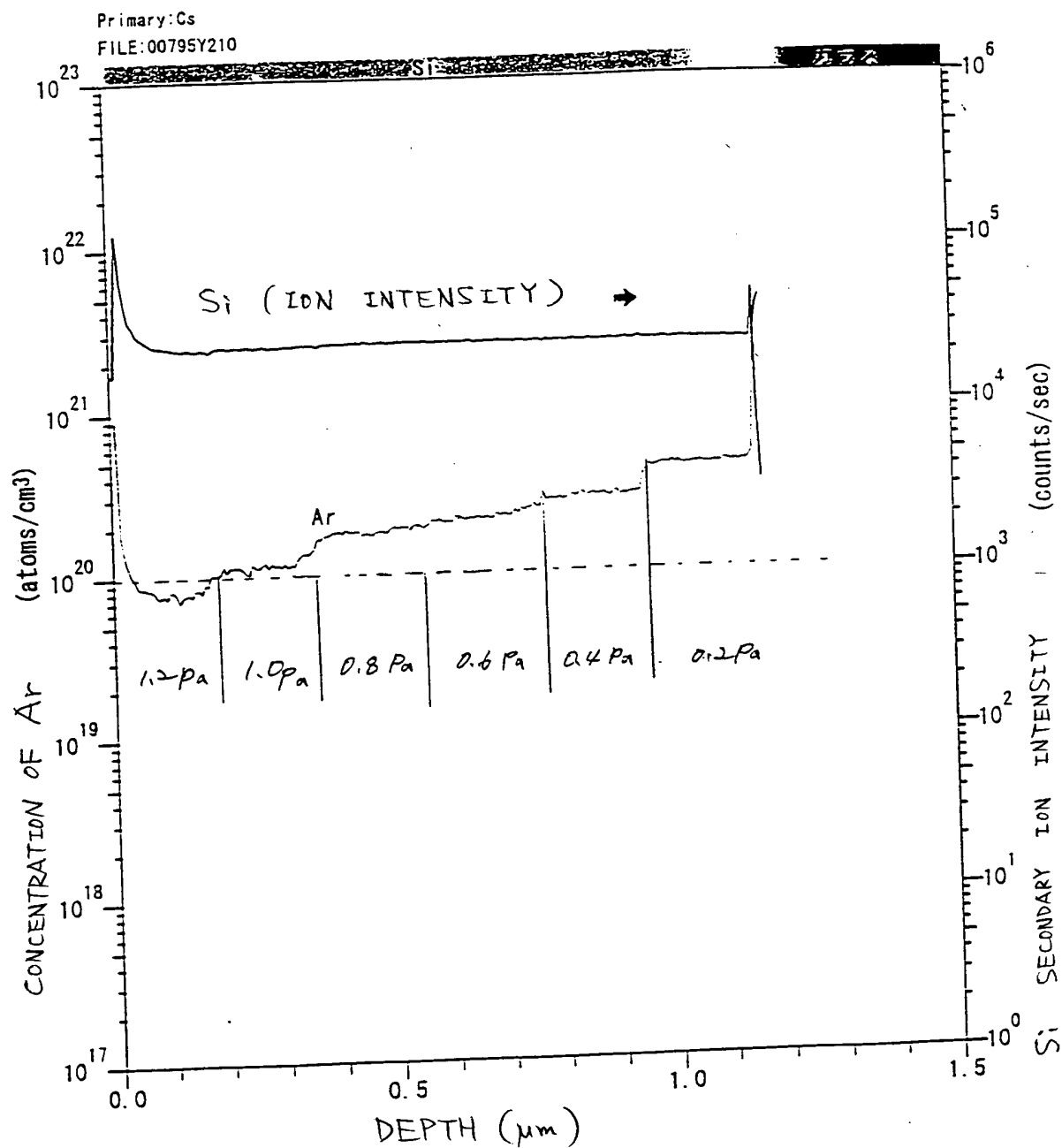
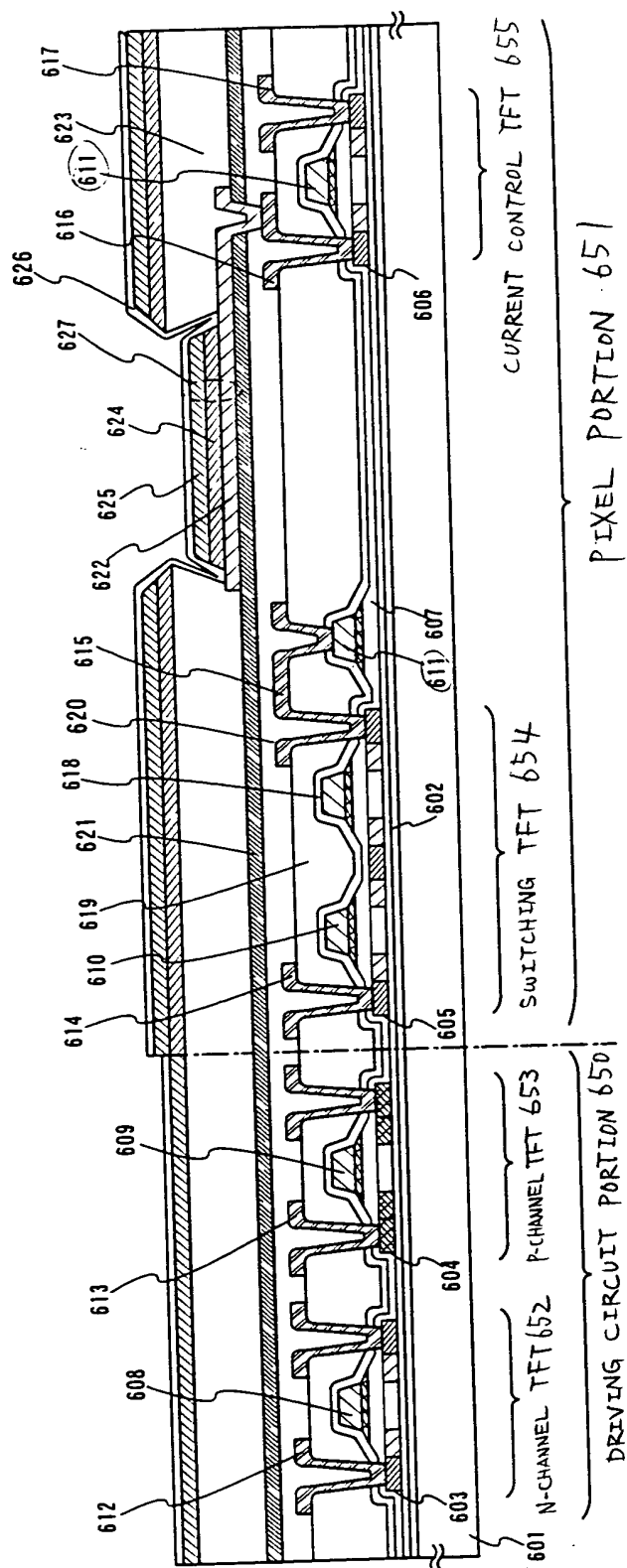


FIG. 9



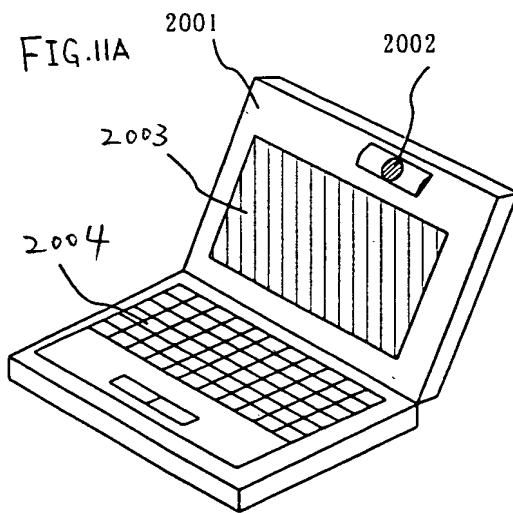


FIG. 11A

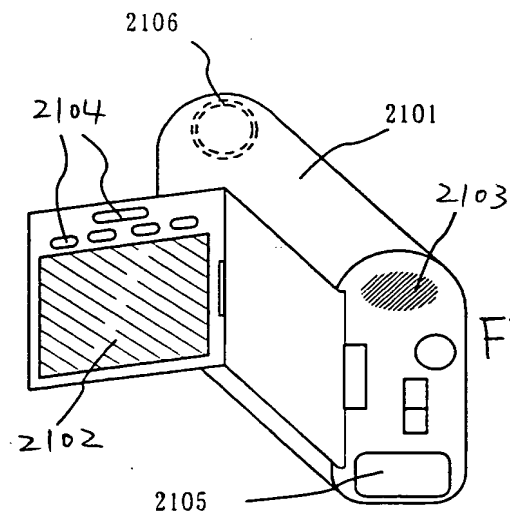


FIG. 11B

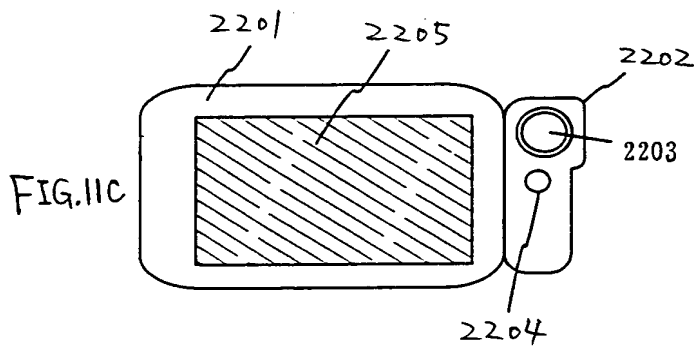


FIG. 11C

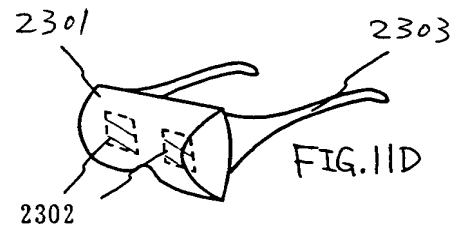


FIG. 11D

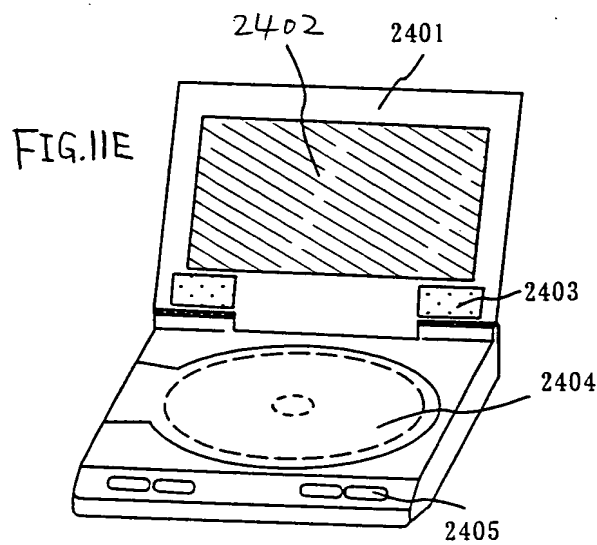


FIG. 11E

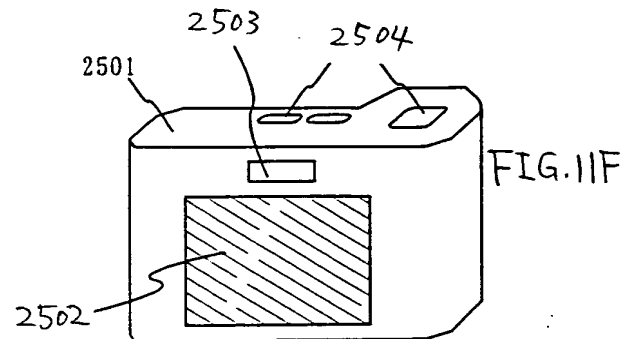


FIG. 11F

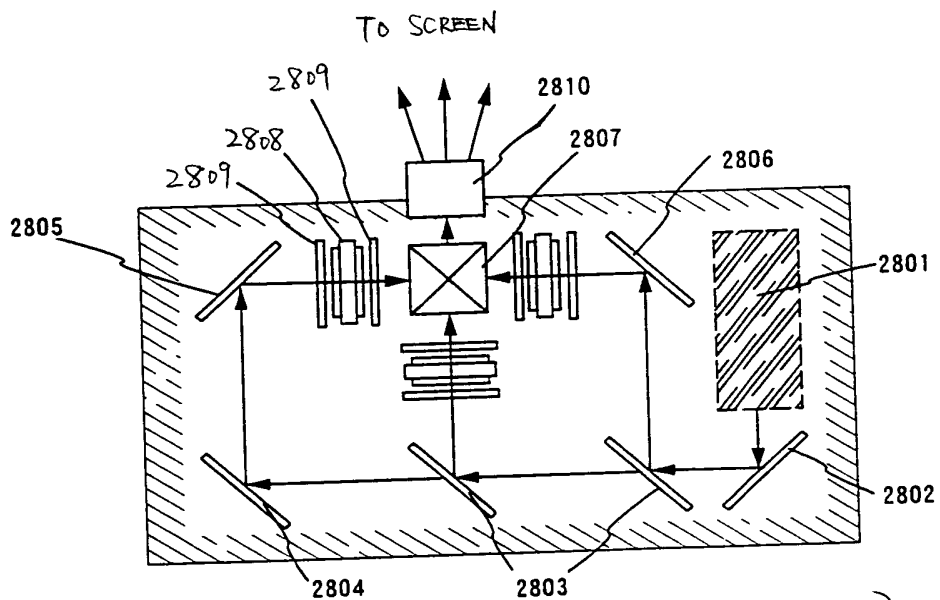
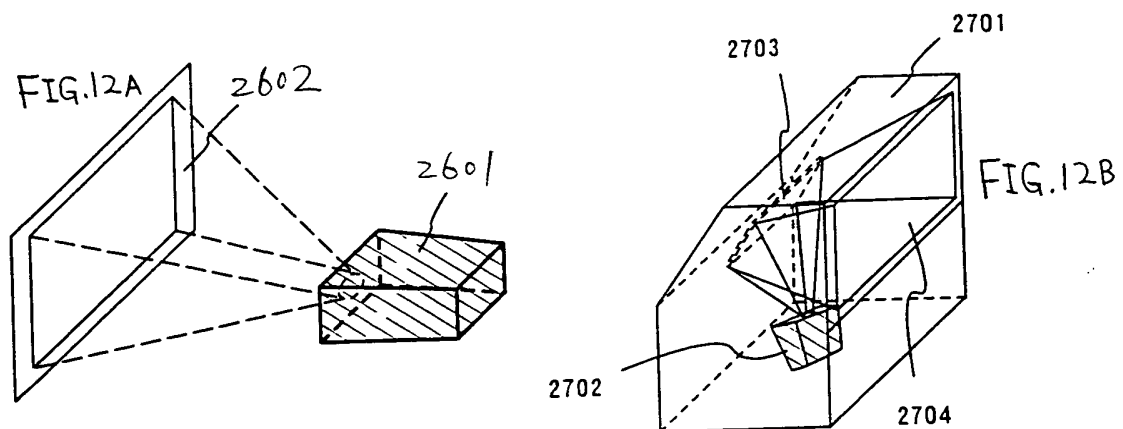


FIG. 12C PROJECTION APPARATUS (THREE PLATES TYPE)

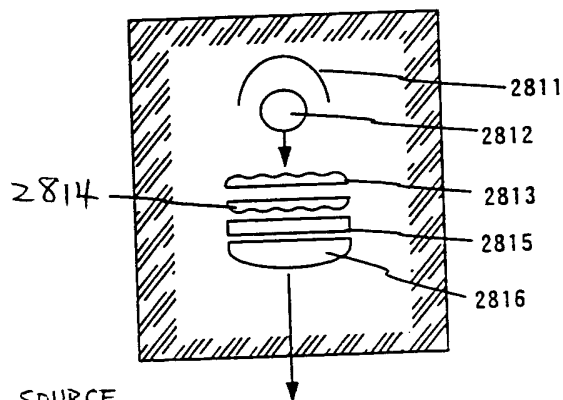


FIG. 12D LIGHT SOURCE OPTICAL SYSTEM

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FIG. 13A

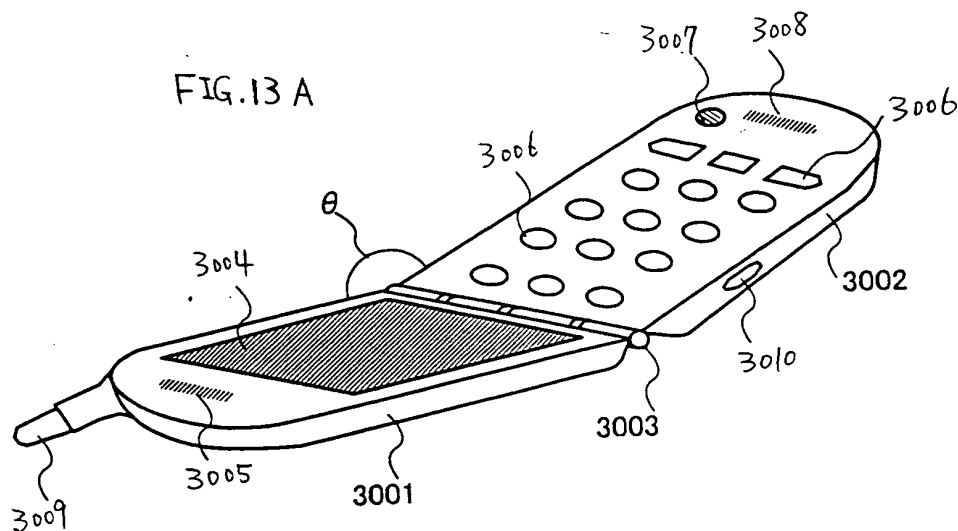


FIG. 13B

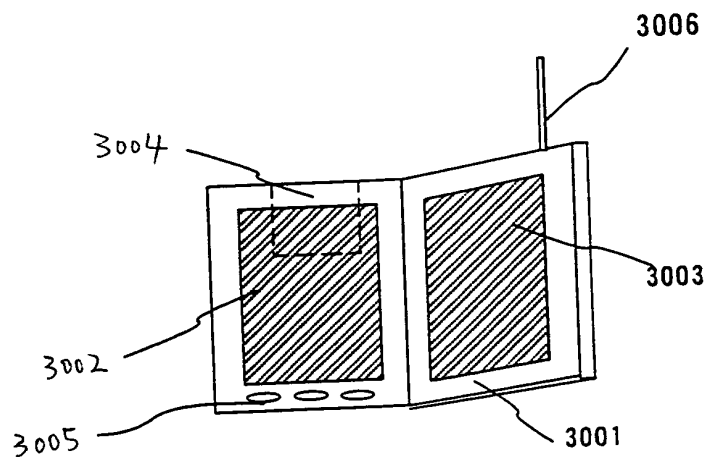
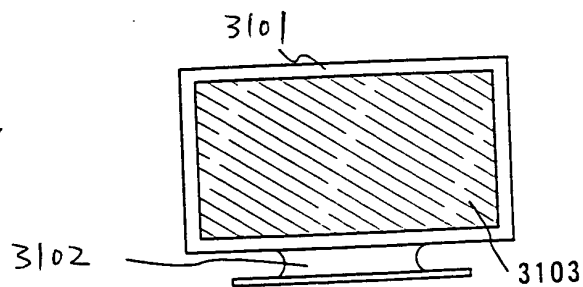


FIG. 13C



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FIG. 14A

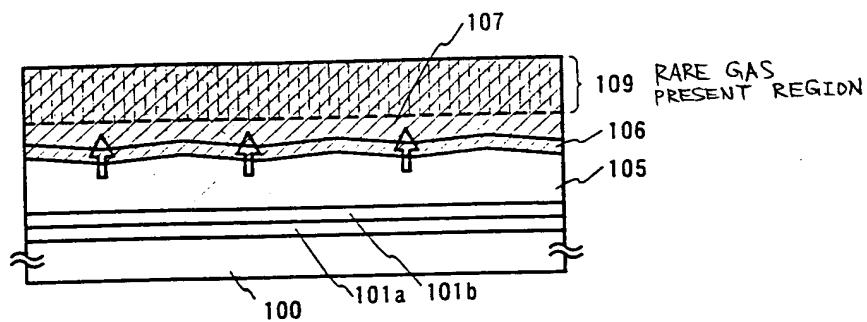


FIG. 14B

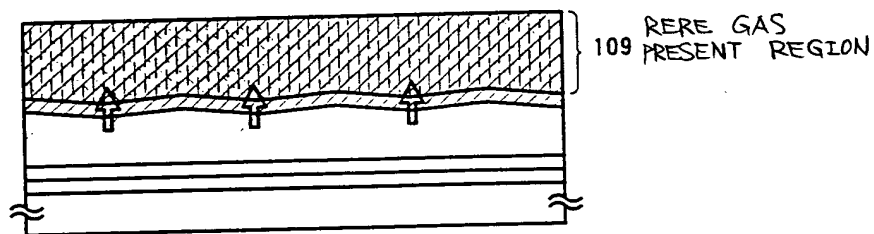


FIG. 14C

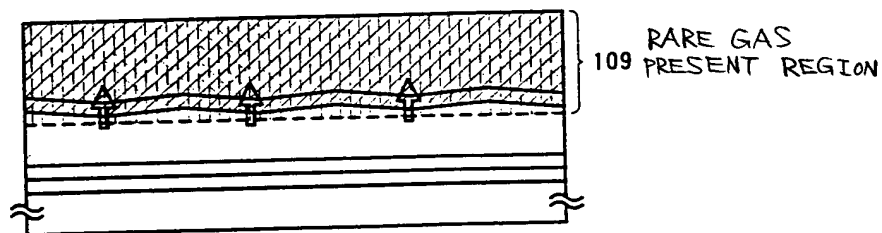


FIG.15A FORMATION OF GATE WIRING

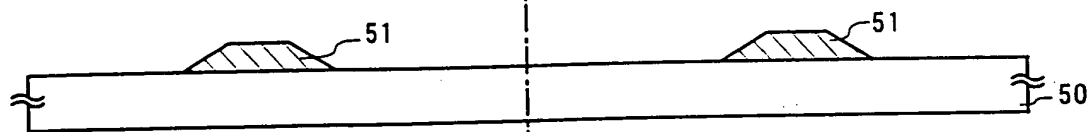


FIG.15B FORMATION OF GATE INSULATING FILM AND SEMICONDUCTOR FILM



FIG.15C CRYSTALLIZATION

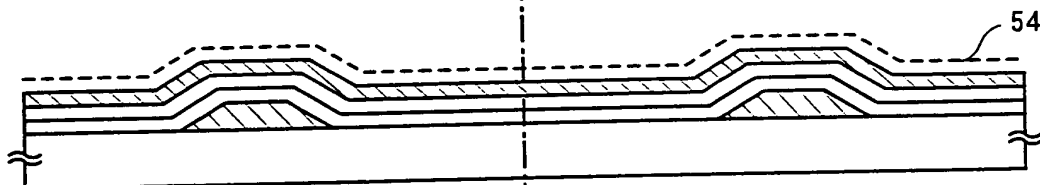


FIG.15D GETTERING

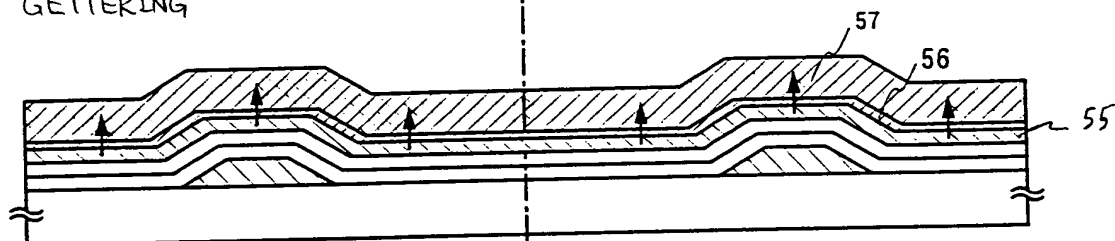
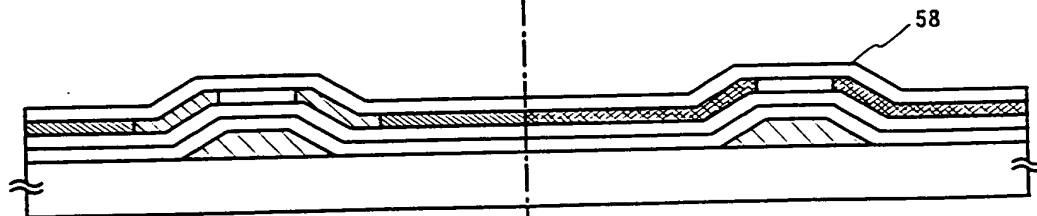


FIG.15E ADDITION OF IMPURITY ELEMENT



N-CHANNEL TFT

P-CHANNEL TFT

10051054-011303

FIG.16A ACTIVATION

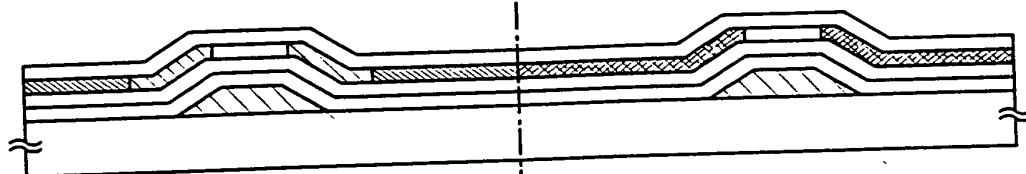


FIG.16B

FORMATION OF INTERLAYER  
INSULATING FILM

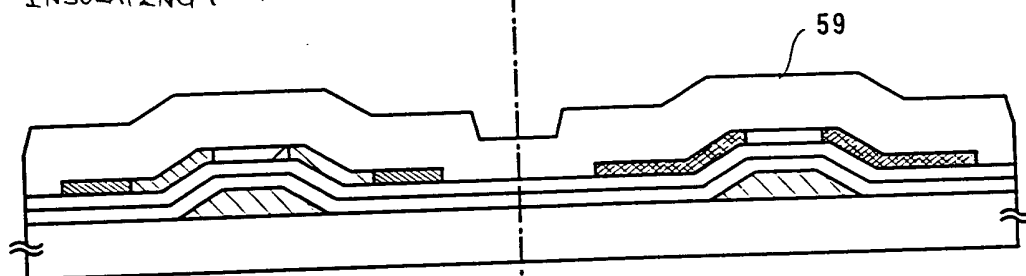
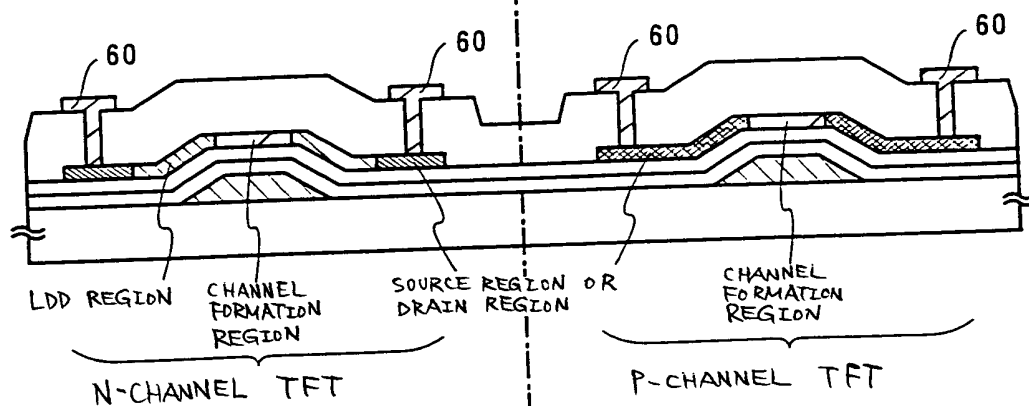


FIG.16C

FORMATION OF SOURCE WIRING  
AND DRAIN WIRING



LDD REGION

CHANNEL  
FORMATION  
REGION

SOURCE REGION OR  
DRAIN REGION

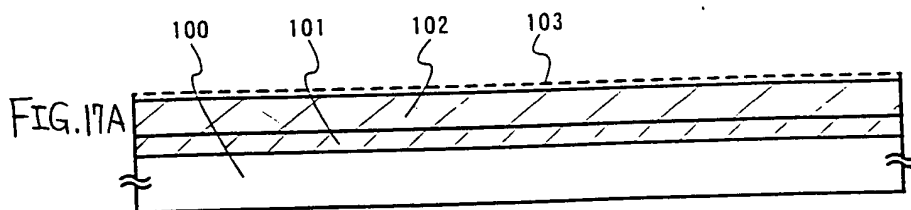
CHANNEL  
FORMATION  
REGION

N-CHANNEL TFT

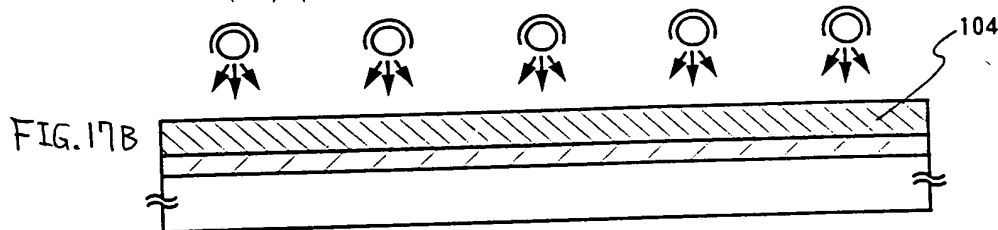
P-CHANNEL TFT

1051054-011802





HEAT TREATMENT



ADDITION OF  
RARE GAS

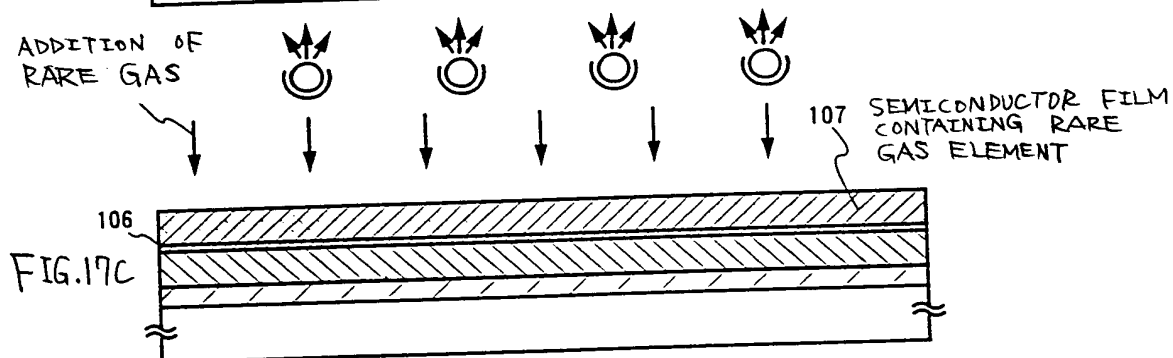
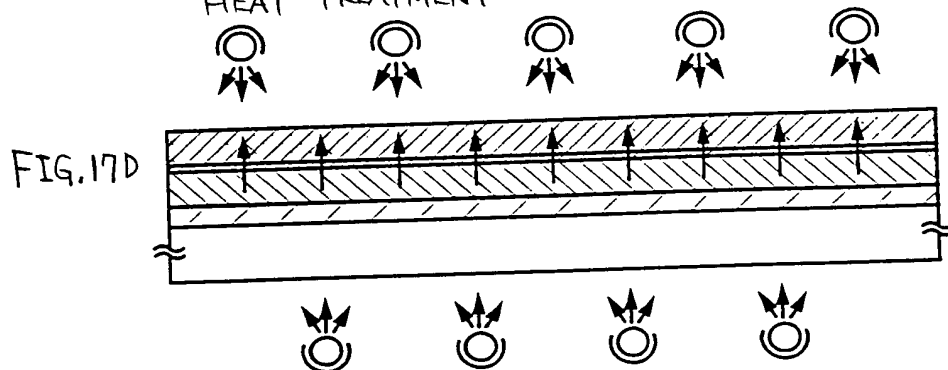
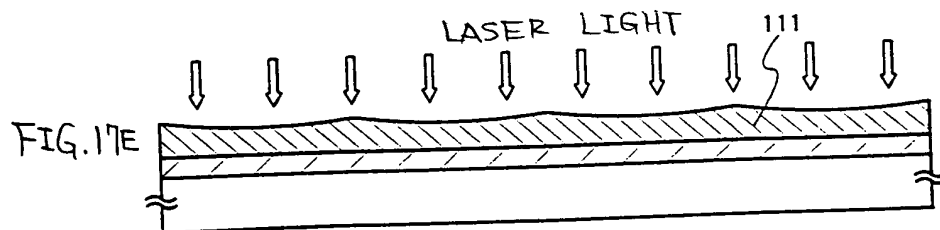


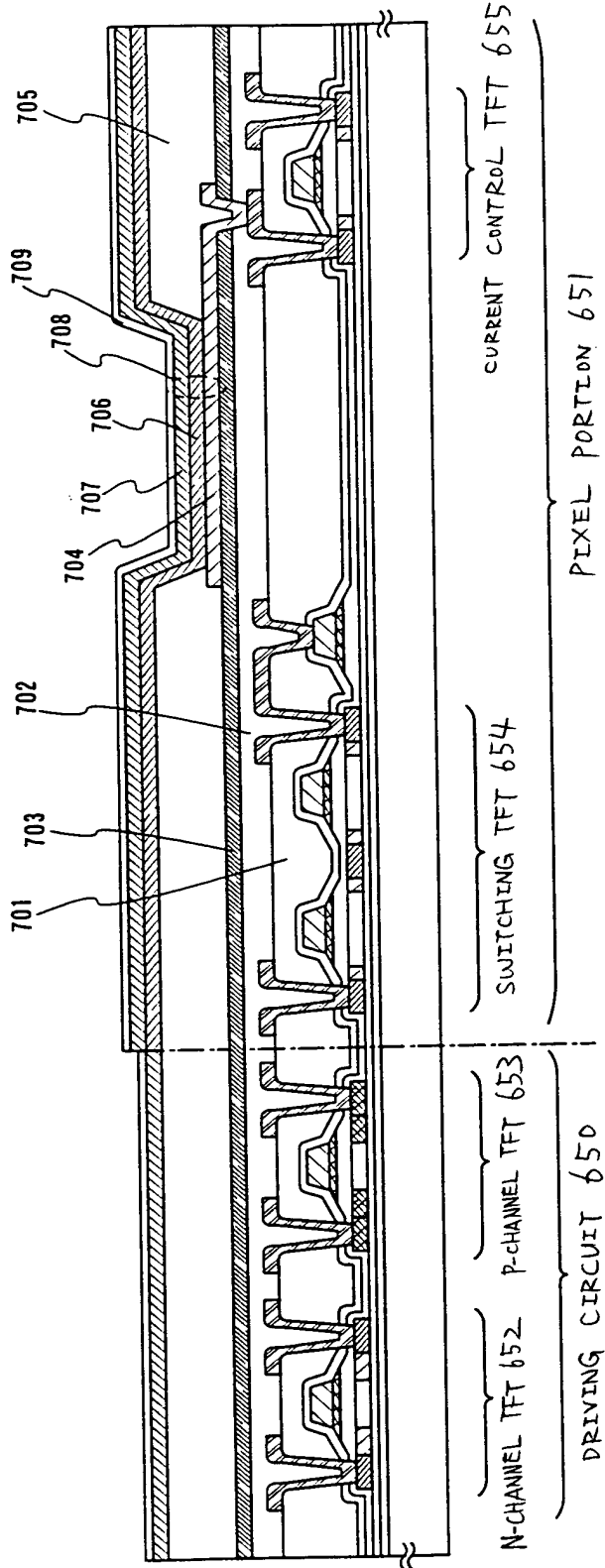
FIG. 17C

HEAT TREATMENT

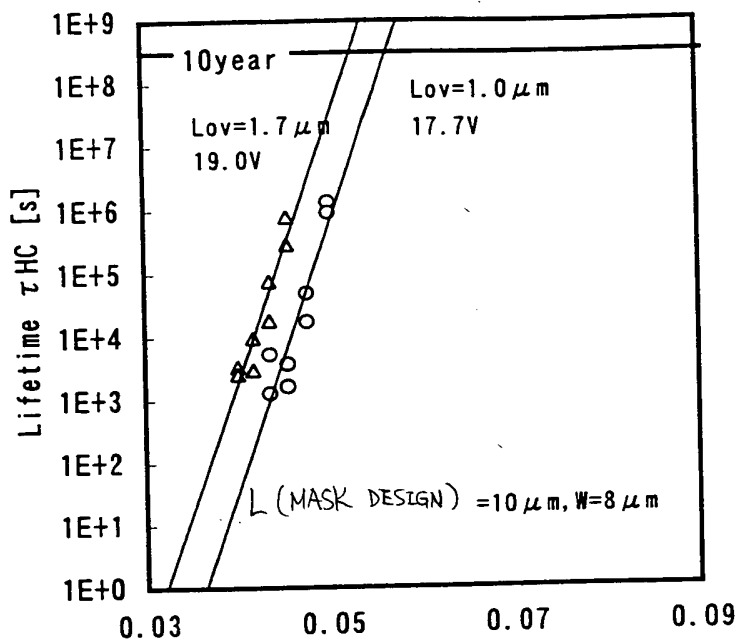


LASER LIGHT

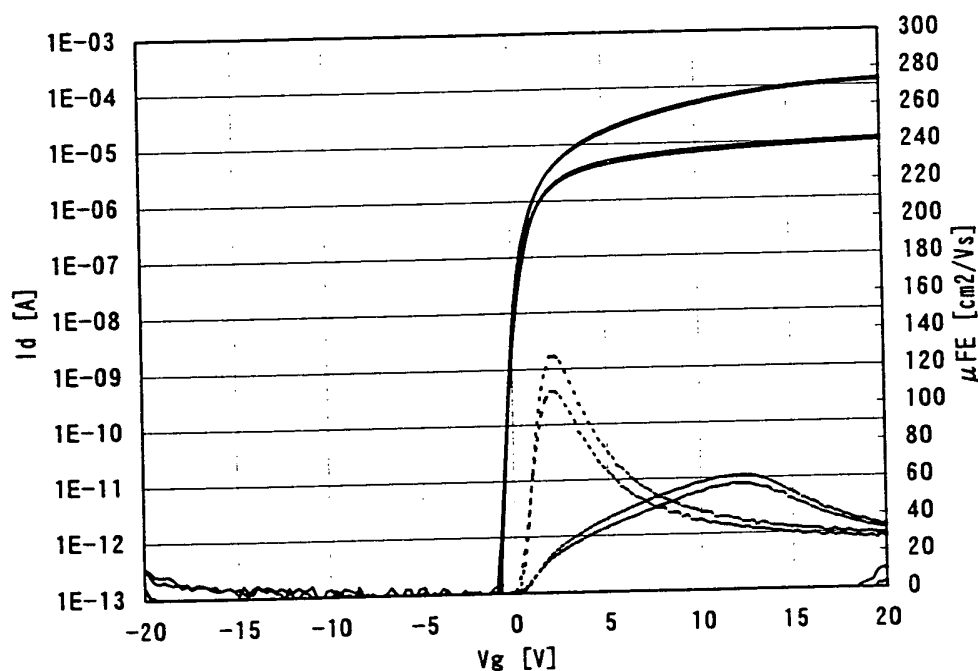




202104-13015001



ESTIMATED GUARANTEED VOLTAGE (ON CURRENT 10% DEGRADATION)  
DEPENDENCE ON LENGTH OF  $L_{ov}$  ( $L/W = 10/8 \mu m$ )



STATIC CHARACTERISTIC OF PIXEL TFT ( $L/W = 4.5 \times 2/3 \mu m$ )